Blohm+Voss MEKO® A-200 Class Frigate

Stealthy. Versatile. Powerful.

OVERALL DESIGN FEATURES

The Blohm+Voss MEKO® A-200 Class Frigate is the latest operational product of the tough and versatile Blohm+Voss MEKO® frigate and corvette line of 60 ships serving 11 navies worldwide. The Blohm+Voss MEKO® A-200 Class is a general purpose frigate built for combat, featuring the revolutionary CODAG-WARP propulsion, all-round stealth and superb seakeeping and helicopter operations.

The MEKO® A-200 Class Frigate features:

- Complete new approach to hull shaping
- Dramatic reduction of radar, infra-red, acoustic and magnetic signatures
- CODAG/WARP water jet/propeller propulsion
- Revolutionary top deck design
- Funnel elimination
- Newly designed inner decks, more space
- Larger payload share of total displacement
- Crew reduction
- High modularity level
- Kevlar®/ceramic/steel sandwich armour panels
- Helicopter flight deck, hangar, workshops.

Four vessels have been delivered between 2005 and 2007 to the South African Navy, and have since proven operational capabilities.

STEALTH DESIGN / SIGNATURE SUPPRESSION

RADAR SIGNATURES

- Proven, highly effective X-shaped cross section
- Optimised inclination of all outer surfaces
- Reflective, flat / tilted surfaces
- No corner reflections
- No railings
- No outer surface mountings
- Covered open deck equipment
- Flush closing shell doors and openings
- Specially designed RCS reducing upper deck fittings.

INFRA-RED SIGNATURES

- Shell and deck cooling system
- Avoidance of hot spots
- Optional diesel exhaust exits above/below the waterline
- Horizontal main exhaust lines exiting at the vessel's stern with injected sea water to reduce exhaust gas temperatures.

ACOUSTIC SIGNATURES

- Propulsion and generating machinery encapsulated against airborne noise
- Elastomeric mountings counter hull noise
- Forefoot skeg and machinery's aft positioning reduce sonar self-noise
- CODAG/WARP drive chain enables quieter, smaller propellers and combines diesel and gas power in the water, not via a noisy combining gearbox.

MAGNETIC SIGNATURES

- Tri-axial degaussing system.

ECONOMY

- High single diesel speed (18 knots) ensures most of underway life on one diesel engine = fuel economy, maintenance economy
- Cross connect gearbox enables cruising on single diesel engine on both shafts.

SURVIVABILITY

- Kevlar®/ceramic/steel sandwich splinter protection panels
- Four damage control zones, five smoke zones
- Fully redundant machinery and DC control
- Secondary conning station in aft mast
- Completely separated, redundant GT or diesel propulsion system
- Full NBC protection (detection/filtration/citadel/wash down)
- Excellent damage length and supply separation
- Redundant combat management system and data highways.

HELICOPTER OPERATIONS

The superb sea-keeping and longitudinal stability enabled by the forefoot skeg combine with an exceptionally spacious hangar, large flight deck with harpoon grid and no funnel exhaust environment, to make for outstanding helicopter ops.

- 1 x 5-ton organic helicopter plus 2 x UAVs, or
- 2 x 5-ton organic helicopters, or
- 1 x 10 ton organic helicopter
- Air weapons magazine.

MAIN SPECIFICATIONS

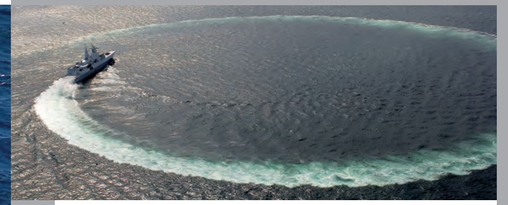
Length over all	121.00m
Max beam	21.00 m
Draft full load	3.90 m
Displacement	3,600 t
Complement	120 + 50
Max speed CODAG	> 29 kn
Cruising speed, 2 diesels	> 23 kn
Cruising speed, 1 diesel	18 kn
Tactical diameter	4.9 ship lengths
Stopping distance	3 ship lengths
Endurance	28 days
Range (at 16 kn)	> 7,200 nm

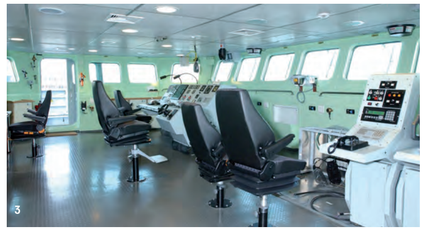
32 MW total power output (gas turbine/diesel engines) can be used both independently and simultaneously.

GROWTH POTENTIAL AND UTILITY

- Built-in growth potential with significant margins for electrical supply, mass, volume, cooling, HVAC, cable trays, cable and pipe penetrations
- First frigate in the world designed to carry 2 x 20 TEU containers without removal of any mission loads
- RAS (bow and side) and supply (stern)
- 2 x stern-launching compartments for mines, special forces, UUVs or towed decoys or arrays.

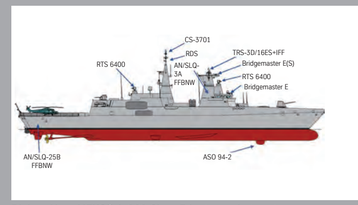
Blohm+Voss MEKO® A-200 Class Frigate: Quality "Made in Germany"



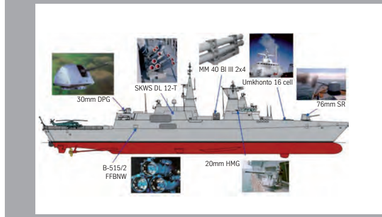


1: Dry and buoyant covered Fo'c'sle. 2: Spacious main alleyway for rapid DC team movement. 3: Integrated bridge. 4: Spacious engine rooms for ease of maintenance access. 5: All combustion engines encapsulated. 6: Captain's cabin. 7: Fully equipped hospital.

Blohm+Voss MEKO® A-200 Class Frigate: Combat Superiority



Blohm+Voss MEKO® A-200 Class Frigate combat system sensor suite (typical)



A typical Blohm+Voss MEKO® A-200 Class Frigate combat system Weapon Suite (customers specify weapons and suppliers)

Surface-to-surface MM40 Blk2 missile

Cutting-edge shipbuilding sciences: streamlined, fast mono-hull with slender forefoot skeg for increased efficiency and reduced yawing (left). CODAG/WARP propulsion system (right)

"Major Deterrent"

Jane's Navy International June 2008

"The opinion of the operators of the Blohm+Voss MEKO® A-200 Class Frigate is that it is an excellent ship to operate.

The superb and innovative propulsion system is reliable, flexible and economic, the habitability and layouts are excellent and the seakeeping performance is outstanding".

South African Navy
Rear Admiral (JG) Kevin J. Watson

ThyssenKrupp Marine Systems GmbH

Hermann-Blohm-Strasse 3 · 20457 Hamburg · Germany
Telephone +49 40-1800-0 · Telefax +49 40-1800-1111
www.thyssenkrupp-marinesystems.com · marinesystems@thyssenkrupp.com

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State-of-the-art lead ships:

Blohm+Voss MEKO® A-200 Class Frigate

In service with the South African Navy.

ThyssenKrupp Marine Systems

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